



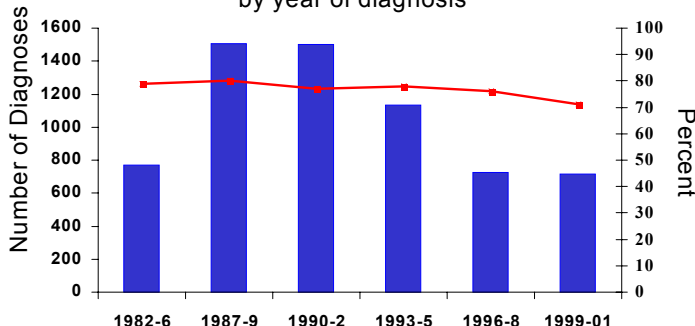
## HIV/AIDS in Men who have Sex with Men

**SUMMARY:** Men who have sex with men (MSM) were the earliest group affected by HIV/AIDS in King County, continue to bear the largest burden of AIDS and HIV (new infections and AIDS diagnoses), and have the highest prevalence of HIV and AIDS (existing infection or disease). In King County, 80% of persons living with HIV including AIDS are MSM – including MSM who have injected drugs (MSM/IDU). Trend data through 2001 show that the proportion of HIV diagnoses among MSM has gradually decreased while the proportion in women and non-MSM injection drug users has increased. However, sexually transmitted disease (STD) rates have increased among MSM in recent years, which may foreshadow an increase in HIV incidence among MSM.

### STATUS AND TRENDS IN HIV DIAGNOSES AND AIDS CASES:

- Although King County data show a declining proportion of HIV diagnoses among MSM (see figure below), MSM are still by far the largest subgroup with HIV in King County.
- The proportion of new HIV diagnoses among MSM not injecting drugs dropped from 78% of those with known risk in 1993-95 to 71% 1999-2001. Non-IDU MSM also dropped from 79% to 69% of AIDS diagnoses in the same time period.
- The proportion of HIV diagnoses among MSM/IDU has remained roughly level at 8% of all diagnoses with known risk from 1993-2001. AIDS in MSM/IDU was level at 10% for the same time period.
- A higher proportion of cumulative HIV/AIDS cases diagnosed among residents of the city of Seattle have been MSM or MSM-IDU (85%) compared to residents of King County outside of Seattle (69%)
- Among the 4,963 persons reported living with HIV or AIDS in King County, 75% of those with known risk are MSM and 10% are MSM/IDU. These proportions are identical among the 2,852 King County residents presumed living with AIDS.

Number and Percent of HIV and AIDS  
Diagnoses Among MSM,  
by year of diagnosis



### POPULATION SIZES:

- Based on data from a variety of sources, Public Health-Seattle & King County estimates the current number of MSM is between 32,000 and 53,000 in King County, including approximately 2,500 - 3,800 MSM with *any* history of injection drug use.
- There are an estimated 6,300 HIV infected MSM without an IDU history. Assuming the population of MSM without IDU above is correct, between 13% and 21% of all MSM are infected with HIV.
- There are an estimated 800 HIV infections county-wide out of MSM with any history of injection drug use. Therefore between 21% and 32% of MSM/IDU are HIV-infected.

**DRAFT 2/24/2003**

### HIV PREVALENCE STUDIES:

Depending on the site or population of MSM and the year of the survey, local HIV prevalence studies show that between 2.5% and 45% of MSM test HIV positive. These studies directly measure the level of infection among specific populations. HIV prevalence rates declined from the mid-1980's through the mid-1990's, but may be rising again. The highest levels of HIV prevalence were generally found in:

- older MSM compared to younger MSM,
  - MSM with STDs,
  - MSM/IDU and especially amphetamine injectors relative to those with no history of IDU
  - African-American MSM relative to whites and others
  - men who had sex exclusively with other men rather than both men and women.
- Among nearly 20,000 men tested at the Public Health HIV/AIDS Clinic between 6/1986 and 12/2000, the prevalence of HIV was 16% among MSM who did not inject drugs and 26% among MSM/IDU.
  - During 2000-2001, 9.7% of 681 MSM tested in the unlinked (anonymous) Harborview STD Clinic survey tested HIV positive.
  - In the same STD Clinic survey, trend analysis showed that HIV prevalence decreased from 36% for all MSM in 1988-89 to 5% in 1996-97, but rose again to 11.5% in 2001.
  - In the STD Clinic unlinked survey between 1997 and 2001, 23% of MSM who tested HIV + did not report a prior positive HIV test *and* did not receive HIV testing and counseling at the survey visit (the HIV testing was due to the anonymous study design). These men may not have been aware of their HIV + status.
  - Public Health's Raven Study of drug injectors found that about 45% of MSM IDU who primarily injected amphetamines were HIV + compared to 29% of gay men and 8% of bisexual men who preferred other drugs (data from 1994-97). Another study conducted in 1994-99 found an HIV prevalence of 6% in MSM/IDU entering drug treatment; for these MSM, heroin was the primary drug used.
  - In the Phase 2 Young Men's Study which tested MSM aged 23-29 years from 12/98 to 2/00, 4.7% (22 of 465) were found to be HIV-infected, and only 64% of these knew of their positive serostatus.

### HIV INCIDENCE:

- HIV incidence (the number of new infections) was estimated at publicly-funded HIV test sites in King County by examining sera of 6,216 people with 2 or more HIV tests 1993-2000. These sites included the Harborview STD Clinic, Public Health-Seattle-King County testing sites, and the Seattle Gay Clinic. At these sites, the incidence appears unchanged 1993 to 1999, but may have increased in 1999-2000.

Year	HIV incidence per 100 person-years (95% CI*)
1993-1994	1.4 (1.0-1.8)
1995-1996	1.3 (1.0-1.7)
1997-1998	1.2 (0.9-1.7)
1999-2000	2.0 (1.4-2.7)

\*The 95% confidence interval (CI) is the interval within which the point estimate of incidence is expected to fall 95% of the time; if a point estimate is outside the 95% CI of another point estimate, then the two point estimates may be statistically significantly different.

### BEHAVIORIAL RISKS:

- Project Shape conducted by the University of Washington School of Social Work in 1997-99 interviewed 257 HIV+ MSM who had anal sex with any male partner in the past 4 months other than a mutually monogamous HIV+ relationship. Several factors were correlated with these men having unprotected anal sex with a partner of unknown or negative HIV status. These include: a larger number of one-time partners; less disclosure of HIV status; negative attitudes about condoms; minimizing the likelihood and seriousness of causing new HIV infections; minimizing HIV transmission risks and personal responsibility; and seeking sex for excitement or relief (as opposed to love).
- A multivariate analysis of MSM tested at the Public Health HIV/AIDS Program site between 1996-99 found that the following factors were associated with at least a two-fold increased risk of HIV seroconversion as determined by the use of the LS-EIA lab method for detecting recent HIV infection: unprotected receptive anal sex in the previous 6 months; four or more male sex partners in the previous 2 months; a history of having ever traded sex for money or drugs; and age 35 years or less.

### BEHAVIORIAL RISKS (Continued):

- In 1999-2000, the Sleepless in Seattle Study recruited 1,000 MSM at sites specializing in health care and HIV testing for MSM. All these MSM had anal sex within the previous year. During the 2 months prior to interview, the following behaviors were reported:  
 85% had any anal sex  
 25% met partners in baths or sex clubs  
 15% used crystal methamphetamine with sex  
 43% "sometimes" or "never" used condoms for anal sex at baths  
 40% did not discuss HIV status prior to sex a majority of the time  
 14% of HIV negative MSM had one or more HIV+ sex partner (this was higher among MSM over 35 years, those with more than 5 sex partners in the past 2 months, and those that used crystal meth).  
 45% of HIV+ MSM had one or more HIV negative sex partner, 33% had one or more sex partners of unknown HIV status; the HIV status was more likely to be unknown for partners met at baths or parks.
- In the 2000 HIV Testing Survey conducted in Seattle, 83 sexually active MSM without HIV infection were recruited from selected venues including bars and clubs. Eight percent had never had an HIV test, 62% had been tested in the past year, and 52% were getting tested on some regular basis. Over the past year, 52% had been in a primary relationship, 9% had been in more than one primary relationship, and 77% had sex with one or more non-primary partners. Of the 83, 34% always used a condom, 45% sometimes used condoms, and 21% never used condoms.
- In the Kiwi study, injection drug users incarcerated at two King County Correctional facilities were tested for HIV between 8/98 and 7/02. MSM had a higher prevalence of HIV infection than other IDU; MSM who used amphetamines had the highest prevalence of HIV relative to MSM who primarily injected other drugs.

Primary injection drug in the past year		Total number of men and % with HIV			
		MSM n=157		non-MSM n=1201	
	Number	Number	% HIV+	Number	% HIV+
<b>Heroin</b>	658	76	3	582	2
<b>Speedball</b>	151	10	0	141	2
<b>Cocaine</b>	150	18	11	132	2
<b>Amphetamine</b>	399	53	18	346	1

- HAART availability may be associated with increases in unsafe sex due to reduced fear of HIV and improvement in the health of persons with HIV infection [ref].

#### TRENDS IN STD RATES AS AN INDICATOR OF HIV RISK:

- After declining since 1983, STD rates increased substantially among MSM in King County beginning in 1997. The presence of an STD increases the likelihood of HIV transmission by two-fold to five-fold according to the Centers for Disease Control and Prevention, and is a marker for high risk sexual behavior.
- Gonorrhea case numbers in MSM are climbing. In 2001 there were 268 cases of gonorrhea among King County MSM, but over 400 gonorrhea cases are predicted in MSM in 2002 (case reports through 09/2002).
- Chlamydia diagnoses reported in MSM in King County have more than quadrupled in the past 7 years, from about 30 cases reported in 1996 to about 128 in 2002.
- Early syphilis rates among MSM in King County rose from zero in 1996 to 82 per 100,000 in 1998 and about 130 are expected per 100,000 in 2002.
- Early syphilis rates among HIV-infected MSM climbed from 50 per 100,000 in 1997 to 783 per 100,000 in 1999 and are expected to be about 600 per 100,000 in 2002.
- Among all MSM diagnosed with early syphilis 1998-2001, 68% had known HIV infection.
- Of 681 MSM tested in the unlinked (anonymous) STD Clinic survey during 2000-2001, 30% of MSM with gonorrhea were HIV+ compared to 8% of those without gonorrhea. [The overall HIV prevalence among MSM in this survey was 9.7%]. Meanwhile, 3% of women and non-MSM male STD clients diagnosed with gonorrhea, and 0.5% without gonorrhea, were diagnosed with HIV infection.

**SUBGROUP HIGHLIGHTS:****Young MSM**

- Young MSM are at high risk of acquiring HIV. Data from the Public Health HIV/AIDS Program HIV testing site indicates that of 2,361 HIV + male clients seen between 6/86-12/00, 1% reported first testing HIV + at age 19 or younger; 11% between age 20-24 and 25% between age 25-29.
- The Seattle Young Men's Survey (YMS) conducted by Public Health-Seattle & King County between 10/97 and 2/00 revealed an HIV prevalence of 2% among MSM age 15-22 compared to 5% in MSM age 23-29.
- Six large US cities conducted YMS in 1998-00 and surveyed more than 2,400 MSM age 23-29. Seattle had the lowest HIV prevalence (5%) and Dallas had the highest (18%). Overall, 46% of YMS participants reported unprotected anal intercourse during the previous 6 months; the figure for Seattle was 48%.
- In the Seattle YMS survey of MSM age 23-29 (Phase II YMS), there were 22 participants who tested HIV positive. Nine of these men (41%) had been unaware that they were HIV positive prior to testing in YMS.
- Younger men were more likely to have multiple recent sex partners and higher rates of alcohol and drug use. For one-quarter of YMS participants with recent multiple sex partners, being high on alcohol or drugs was a reason for unprotected sex. These risks were more common among MSM age 23-29 compared to those 15-22 years of age, as shown below:

**Risk behaviors in past 6 months among young MSM in King County in YMS**

	<b>15-22 years (n=368)</b>	<b>23-29 years (n=462)</b>
≥ 5 male sex partners	23%	29%
Sex while high on alcohol or drugs	54%	71%
Anal sex	67%	78%
Unprotected anal sex	38%	48%

**Men of color**

- Most, 68%, men of color currently living with HIV/AIDS reported male-male sex (with or without IDU) as a risk factor for HIV; this proportion is lower than among White men (93% reporting male-male sex).
- Of male HIV/AIDS cases reported through 6/02, 58% of African Americans were MSM or MSM/IDU compared to 72% of Latinos/Hispanics; 84% of Am. Indian/AK Natives; and 80% of Asian/Pacific Islanders.
- Ten percent of men living with HIV/AIDS overall reported both MSM/IDU as HIV risk factors, and 33% of Am. Indians/AK Natives reported these risks. White men had the same proportion as overall (10%) MSM/IDU, 4% of Asian/Pacific Islanders were MSM/IDU, 7% of African Americans, and 6% of Latinos.

**Bisexual men**

- Of 7,575 MSM who sought HIV counseling and testing at Public Health's HIV/AIDS Program testing site between 1/88-8/97, 17% also reported one or more female sex partners in the past 12 months. This proportion increased from 15% in 1988 to 21% in 1995 and then decreased to 17% in 1997. The proportion of condom use for vaginal intercourse among MSM increased from 14% in 1988 to 36% in 1997.

**Amphetamine use in MSM drug injectors**

- Amphetamine use was reported by 40% of MSM drug injectors compared to 4% of non-MSM drug injectors in unlinked prevalence surveys conducted at King County drug treatment centers in 1988-97.
- In an interview study of IDUs conducted in King County from 6/94-5/98, amphetamine was the most common injection drug for 33% of MSM injectors compared to 5% of all other injectors. In this same study the prevalence of HIV was 47% in those MSM whose usual injection drug was amphetamine compared to 14% among MSM who primarily injected other drugs.